Appendix

Appendix A. List of APPLE 2014 Consensus Development Committee Members

(A) Surgery for intermediate/advanced-stage disease

Chair: Norihiro Kokudo (Tokyo)

Committee members:

Xiao-Ping Chen (Wuhan), Youngrok Choi (Seoul), Kiyoshi Hasegawa (Tokyo), Ming-Chih Ho (Taipei), Ruey-Heng Hu (Taipei), Wei-Chen Lee (Taoyuan), Young Joo Lee (Seoul), Hiroaki Nagano (Osaka), Ronnie T. P. Poon (Hong Kong), Feng Shen (Shanghai), Chih-Chi Wang (Kaohsiung), Jian Zhou (Shanghai)

(B) Prevention of HCC after curative therapy

Chair: Chien-Hung Chen (Taipei)

Committee members:

Deepak Amarapurkar (Mumbai), Oidov Baatarkhuu (Ulaanbaatar), Tetsuya Hosaka (Tokyo), Namiki Izumi (Tokyo), Ji-Dong Jia (Beijing), Kwan Sik Lee (Seoul), Seung Woon Paik (Seoul), Diana Payawal (Manila), Shuichiro Shiina (Tokyo), Tawesak Tanwandee (Bangkok), Lai Wei (Beijing), Chun-Ying Wu (Taipei), Ming-Lung Yu (Kaohsiung)

(C) Optimizing imaging diagnosis

Chair: Takamichi Murakami (Osaka)

Committee members:

Bang-Bin Chen (Taipei), Ran-Chou Chen (Taipei), Byung Ihn Choi (Seoul), Myeong-Jin Kim (Seoul), Jeong Min Lee (Seoul), Ja-Der Liang (Taipei), Osamu Matsui (Kanazawa), Tiffany Ting-Fang Shih (Taipei), Ranji Yang (Beijing), Meng-Su Zeng (Shanghai)

(D) Radiotherapy: current practice and future clinical trials

Chair: Jinsil Seong (Seoul)

Committee members:

Tetsuo Akimoto (Tokyo), Jason Chia-Hsien Cheng (Taipei), Pierce K. H. Chow (Singapore), Kwang-Hyub Han (Seoul), Ji-Hong Hong (Taoyuan), Mi Sook Kim (Seoul), Rheun-Chuan Lee (Taipei), Po-Ching Liang (Taipei), Joseph Wan-Yee Lau (Hong Kong), Hee Chul Park (Seoul), Michael Wang (Singapore), Zhao-Chong Zeng (Shanghai)

(E) The roles of cytotoxic chemotherapy

Chair: Winnie Yeo (Hong Kong)

Committee members:

Yee Chao (Taipei), Li-Tzong Chen (Tainan), Ann-Lii Cheng (Taipei), Jeong Heo (Busan), Chiun Hsu (Taipei), Masatoshi Kudo (Osaka), Laurentius A. Lesmana (Jakarta), Ho Yeong Lim

(Seoul), Shuntaro Obi (Tokyo), Joong-Won Park (Goyang), Thomas Yau (Hong Kong), Sheng-Long Ye (Shanghai), Jong Eun Yeon (Seoul)

Appendix B. Pre-congress questionnaire

Part A. General survey of HCC epidemiology/current status of HCC management

• How many new HCC patients are diagnosed each year in your institution?

< 100	100 – 250	251 – 500	501 – 750	751 – 1000	> 1000

• How many HCC patients are referred to your institution each year for recurrent/metastatic diseases?

< 100	100 – 250	251 – 500	501 – 750	751 – 1000	> 1000	Data not available

• Is BCLC an adopted staging system in your institution?

If yes, what is the approximate distribution of tumor stage (BCLC system) in newly diagnosed HCC in your institution?

Very early (%)	Early (%)	Intermediate (%)	Advanced (%)	End-stage (%)

If no, which is the most commonly adopted staging system in your institution?

_____

• What is the approximate distribution of etiologies of the underlying liver diseases in newly diagnosed HCC in your institution?

HBV (%)	HCV (%)	Alcoholic (%)	Others/unknown (%)

• What is the approximate proportion of newly diagnosed HCC that has a histological diagnosis?

%

• Does your institution have screening program for HCC surveillance?

Yes, please specify

No

• What imaging modalities does your institution have for clinical diagnosis of HCC? (please choose all that may apply)

CT scan MRI contrast-enhanced ultrasound Primovist MRI

Others, please specify

• Does your institution follow specific guidelines for HCC treatment? (please select the most commonly used one)

AASLD/NCCN APASL EASL JSH KLCSG-NCC

Other, please specify

• What is the approximate distribution of curative treatment for HCC used in your institution?

Surgery % Radiofrequency ablation %

Others, please specify (treatment modalities and percentage)

• Does your institution perform liver transplantation for HCC treatment?

Yes approximate number of transplantations each year

No

• Does your institution perform laparoscopic surgery for HCC treatment?

Yes approximate number of cases each year

No

• Does your institution perform robotic surgery for HCC treatment?

Yes approximate number of cases each year

No

• What is the approximate distribution of first-line treatment in newly diagnosed HCC in your institution?

Surgical resection (%)	Transplant (%)	Local ablation (%)	Intra-arterial chemotherapy +/– embolization (%)	Radio-embolization (%)	Systemic therapy (%)	Palliative care (%)	Others, please specify (%)

• What is the approximate proportion of HCC patients who have BCLC intermediate/advanced-stage disease and receive surgery with curative intent in your institution?

%

• What is the approximate distribution of first-line treatment for BCLC intermediate-stage HCC in your institution?

TACE (%)	Intra-arterial chemotherapy (HAIC) (%)	Surgery/ablation (%)	Radio- embolization (%)	Others, please specify (%)

• What are the treatment options for BCLC intermediate-stage HCC in your institution after progression with first-line treatment? (please choose all that may apply)

TACE HAIC Surgery/ablation Radio-embolization

Others, please specify

• What is the approximate distribution of first-line treatment for BCLC advanced-stage HCC in your institution?

Sorafenib (%)	HAIC (%)	TACE (%)	Systemic chemotherapy (%)	Radio- embolization (%)	Others, please specify (%)

• What is the approximate percentage of BCLC advanced-stage HCC who may have a chance to receive second-line systemic therapy in your institution?

%

• What are the treatment options for BCLC advanced-stage HCC in your institution after progression with first-line treatment? (please choose all that may apply)

Sorafenib TACE HAIC Surgery/ablation Radio-embolization

Others, please specify

• Does your institution perform external radiotherapy for HCC treatment? (Note: please consider treatment of intra-hepatic tumors/portal vein thrombi only. Palliative radiotherapy to metastatic tumors is not counted here)

Yes Types of radiotherapy modalities approximate number of cases each year

No

• Does your institution perform radio-embolization (e.g., yttrium) for HCC treatment?

Yes approximate number of cases each year

No

• How do you measure response to loco-regional therapy* in your clinical practice? (please choose one that most commonly applies) ** including RFA, TACE, HAIC, radio-embolization*

Response Evaluation Criteria in Solid Tumors (RECIST)

Modified RECIST (mRECIST) WHO EASL

Other, please specify

• How do you measure response to systemic therapy* in your clinical practice? (please choose one that most commonly applies) ** including molecular targeted therapy and chemotherapy*

Response Evaluation Criteria in Solid Tumors (RECIST)

Modified RECIST (mRECIST) WHO EASL

Other, please specify

• Does your institution participate in clinical trials of HCC treatment?

No

Yes Please provide the following information:

Types of trials	Approximate number of trials ongoing each year in the past 5 years	Approximate number of investigators involved	Approximate number of subjects enrolled each year
Surgery/other curative modalities			
Adjuvant therapy after curative treatment			
TACE/TACE plus drug therapy			
Radiotherapy			
Systemic therapy (for advanced-stage disease)			
First-line			
Second-line			
Early-phase drug trials that enroll HCC subjects			

• Does your institution have a registry database to monitor HCC treatment outcome in your institution?

No

Yes Please provide the following information:

BCLC staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
A				
B				
C				
D				

If your institutional database uses another staging system, please help provide the following information:

Staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)

Part B. Group-specific survey questions

(A) Surgery for intermediate/advanced-stage disease

• Is tumor size > 5 cm a contraindication for surgical resection in your hospital?

No Please provide the following information:

Yes

The criteria you do not perform surgical resection for a single tumor > 5 cm:

• Poor liver functional reserve: Child-Pugh B , ICG (15 min) > %

• Is tumor number > 3 a contraindication for surgical resection in your hospital?

No Please provide the following information:

Yes

The criteria you do not perform surgical resection for multiple HCC:

• Poor liver functional reserve: Child-Pugh B , ICG (15 min) > % , Others

• Tumor involving portal vein: Once PV involvement identified , Portal vein main trunk involvement , Contralateral portal vein involvement , Others

• Tumor size : > cm

• Distant metastasis: Once distant metastasis identified , Distant metastasis involving more than 1 foci

• Portal vein (PV) thrombosis is a contraindication for surgical resection when :

HCC thrombus in PV presents on image study: _____

HCC thrombus in PV main trunk: _____

HCC thrombus in contralateral PV: _____

Others: Please specify _____

• Hepatic vein invasion is a contraindication for surgical resection when:

HCC invasion of hepatic vein on image study: _____

HCC invasion into IVC: _____

HCC invasion into right atrium: _____

• Is surgical resection performed for HCC with bile duct invasion

No _____

Yes _____ Please provide the following information:

The criteria for performing the surgical resection:

Bile duct invasion: ipsilateral bile duct only _____, Invasion to the common hepatic duct, but without contralateral bile duct invasion _____, Without invasion of the second radical of the contralateral bile duct _____

Preoperative biliary drainage: Yes _____, No _____,

Others, please specify _____

Procedure: Tumor resection and HCC thrombectomy _____, Tumor resection and bile duct resection, _____, Others, please specify _____

• Is surgical resection performed for extra-hepatic metastasis of HCC

No _____

Yes _____ Please provide the following information:

The criteria for performing the surgical resection:

Symptom: Only symptomatic _____ , Including patients not symptomatic _____

Disease status in the liver: Free of HCC _____ , Stable HCC _____ , Not considered _____

Metastatic foci: Localized _____, Involving more than one organ is acceptable _____

What are the common sites of metastatic tumors that you perform surgical resection (please indicate approximate percentage) Lung %, Bone %, Adrenal gland %, Others, please specify

• Is neoadjuvant therapy performed in your institute before surgery for intermediate or advanced HCC

No _____

Yes _____ Please provide the following information:

The indication for neoadjuvant therapy: _____

neoadjuvant therapy used: _____

• Is combination therapy including surgery employed to treat intermediate or advanced HCCs which cannot be removed completely by surgery in your hospital

No _____

Yes _____ Please provide the following information:

The treatment modality chosen for the residual tumors:

Sorafenib TACE HAIC Ablation Radio-embolization

Others, please specify

The timing of the treatment

Before surgery _____ During surgery _____ Within 2 weeks after surgery _____ Between 2 weeks and 4 weeks after surgery _____ Between 1 month to 3 months after surgery _____

• What are the treatment options for BCLC “Early stage” HCCs becoming “Intermediate or late stage” after initial treatment in your institution (please choose all that may apply)

TACE HAIC Surgery/ablation Radio-embolization

Others, please specify

• Does your institution have a registry database to monitor HCC outcomes after surgery in your institution?

No

Yes Please provide the following information:

BCLC staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
0 (very early)				
A				
B				
C				
D				

If your institutional database uses another staging system, please help provide the following information (overall survival after surgery):

Staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)

(B) Prevention of HCC after curative therapy

• What is the approximate distribution of patients receiving treatment to prevent HCC recurrence after curative treatment in your institution?

_____% in all HCC patients

_____% in HBV-related HCC patients

_____% in HCV-related HCC patients

_____% in Non-HBV-, non-HCC-related HCC patients

• Does your institution follow specific guidelines for anti-viral therapy in chronic viral hepatitis?

Anti-HBV: APASL AASLD EASL others, please specify

Anti-HCV: APASL AASLD EASL others, please specify

• What kind of treatment do you consider effective for prevention of HCC recurrence after curative treatment? (please choose all that may apply)

Anti-HBV therapy (NA) _____, anti-HBV therapy (IFN) _____, anti-HCV therapy (IFN-based)

Sorafenib _____, retinoid acid _____, Vitamin K2 _____, others _____

• What is the approximate percentage of patients who received anti-HBV therapy after curative treatment for HBV-related HCC in your institution? _____%

• What is the approximate distribution of drugs used for anti-HBV therapy after curative treatment for HBV-related HCC? (Drug combination is common. So the sum of percentages can exceed 100%)

lamivudine _____% adefovir _____% telbivudine _____%

entecavir _____% tenofovir _____% interferon _____%

• For those who receive anti-HBV therapy with NA after curative treatment for HCC, how long is the treatment duration?

< 6 months _____, 6–12 months _____, 1–3 years _____, 3–5 years _____, life-long_____

• What is the major benefit in giving anti-HBV therapy after curative treatment for HBV-related HCC? (please check all that may apply)

Control of virus replication Control of inflammation (transaminase elevation) in the liver Prevention of progression to cirrhosis Prevention of cirrhosis-related complications Prevention of HCC recurrence Prolongation of survival

• What are the major concerns in your institution on giving anti-HBV therapy after curative treatment for HBV-related HCC? (please check all that may apply)

Lack of established criteria for patient selection Lack of established treatment regimens

Lack of consensus on treatment endpoint(s) Lack of consensus on optimal treatment duration

Patient compliance Side effects of treatment Economic (reimbursement) issues Others, please specify

• What is the approximate percentage of patients who received anti-HCV therapy after curative treatment for HCV-related HCC in your institution? _____%

• What is the major benefit in giving anti-HCV therapy after curative treatment for HCV-related HCC? (please check all that may apply)

Control of virus replication Control of inflammation (transaminase elevation) in the liver Prevention of progression to cirrhosis Prevention of cirrhosis-related complications Prevention of HCC recurrence Prolongation of survival

• What are the major concerns in your institution on giving anti-HCV therapy after curative treatment for HCV-related HCC? (please check all that may apply)

Lack of established criteria for patient selection Lack of established treatment regimens

Lack of consensus on treatment endpoint(s) Lack of consensus on optimal treatment duration

Patient compliance Side effects of treatment Economic (reimbursement) issues Others, please specify

(C) Optimizing imaging diagnosis

Ultrasound (US)

• Do you have US elastography in your institution?

Yes

No

• What are the purposes for doing ultrasound elastography? (please choose all that may apply)

Fibrosis staging Monitor antiviral treatment

Liver tumor detection and characterization HCC post-treatment follow-up

Others, please specify

• What kinds of US contrast agents does your institution have for liver disease? (please choose all that may apply)

Levovist ____ Sonovue ____ Sonazoid ____ Definity ____

Other, please specify

• On how many patients do you perform contrast-enhanced US in one month?

<10 10–20 20–40 >40

• What are the purposes for doing contrast-enhanced US? (please choose all that may apply)

Screening , Liver tumor detection ____ , Liver tumor characterization ____ , HCC staging ____ , HCC post-treatment follow-up ____ , Clinical trial ____ ,

Others, please specify

• What is the approximate percentage of newly diagnosed HCC patients who underwent contrast-enhanced US as a diagnostic procedure?

<25% 25–50% 51–75% >75%

• What is the approximate percentage of recurrent HCC patients who underwent contrast-enhanced US as a diagnostic procedure for recurrence?

<25% 25–50% 51–75% >75%

• How may HCC patients (percentage) receive contrast enhanced US and other image modality, such as CT, MRI, and/or angiography at the same time?

<25% 25–50% 51–75% >75%

Computed tomography (CT)

• How many CT machines are used clinically in your institution?

Single-detector CT ____ 16-detector CT ____ 64-detector CT ____ 128-detector CT ____ 256-detector CT ____

Others, please specify

• What is the protocol for dynamic-enhancement imaging of HCC diagnosis ?

Fixed timing two-phases three-phases four-phases

	Early arterial phase	Late arterial phase	Portal venous phase	Equilibrium phase
Timing	(s)	(s)	(s)	(s)

Bolus tracking two phases three phases four phases

Aortic Threshold	Early arterial phase	Late arterial phase	Portal venous phase	Equilibrium phase
(HU)	(s)	(s)	(s)	(s)

It is better to insert “Precontrast” before “Early arterial”

Others, please specify

• Do you have positron emission tomography (PET)/ CT in your institution?

No

Yes What are the reasons for doing PET/CT? (please choose all that may apply)

Liver tumor detection and characterization HCC staging

HCC post-treatment follow-up Clinical trial ___

Others, please specify

• Do you have dual-energy CT in your institution?

No

Yes What are the purposes for doing dual-energy CT? (please choose all that may apply)

Fibrosis staging Monitor antiviral treatment

Liver tumor detection and characterization HCC post-treatment follow-up

Others, please specify

Do you use low-dose CT?

No

Yes What are the reasons for doing dual-energy CT? (please choose all that may apply)

Fibrosis staging Monitor antiviral treatment

Liver tumor detection and characterization HCC post-treatment follow-up

Others, please specify

Magnetic resonance imaging (MRI)

• How many MRI machines are used clinically in your institution?

1.5 T ____ 3 T ____

• Do you use DWI (diffusion-weighted imaging) in the MR sequences for HCC diagnosis?

Yes_____ , the b values are _____

No_____

• Do you use hepatocyte-specific MR contrast agent in your institution?

Yes Gd-EOB-DTPA Gd-BOPTA SPIO Others, please specify _____

No

• How many patients per week receive MRI examination with hepatocyte-specific MR contrast agent?

<10 10–20 20–40 >40

• How may HCC patients (percentage) receive hepatocyte-specific MR contrast agent and CT at the same time?

<25% 25–50% 51–75% >75%

• Do you have MR elastography in your institution?

No_____

Yes What are the reasons for doing MR elastography? (please choose all that may apply)

Fibrosis staging Monitor antiviral treatment

Liver tumor detection and characterization HCC post-treatment follow-up

Others, please specify

• Do you have PET/MR in your institution?

No_____

Yes What are the reasons for doing PET/MR? (please choose all that may apply)

Liver tumor detection and characterization HCC staging

HCC post-treatment follow-up Clinical trial ____

Others, please specify

Angiography

• Do you have angiography in your institution?

No_____

Yes What are the reasons for doing angiography? (please choose all that may apply)

Liver tumor detection and characterization HCC staging

HCC post-treatment follow-up Clinical trial ___Treatment (TACE) ___

Others, please specify

• Do you perform CTHA (hepatic arteriography) or CTAP (arterioportography) for diagnosis of HCC?

Yes CTHA patients/month ; CTAP patients/month

No

• Do you have rotatory (Cone-beam CT) angiography [Innova CT HD (GE Healthcare), DynaCT (Siemens AG) or XPerCT (Philips)] for TACE in your institution? Yes ____ No _____

Others

• What is the approximate percentage of patients using imaging diagnosis (CT/MRI) without pathology confirmation for HCC diagnosis?

CT only <10% 10%–25% 25–50% 51–75% >75%

MRI only <10% 10%–25% 25–50% 51–75% >75%

CT and MRI <10% 10%–25% 25–50% 51–75% >75%

• What is the approximate percentage of patients showing atypical imaging features for HCC diagnosis?

CT <10% 10%–25% 25–50% 51–75% >75%

MRI <10% 10%–25% 25–50% 51–75% >75%

• Do you have multi-department combined meetings for HCC in your institution?

Yes How often do you have this meeting a month? ____ times/month

No

• What imaging modalities are you using for HCC follow-up? (please choose all that may apply)

After curative treatment: US % CT % MRI % Others, please specify _____

After TACE: US % CT % MRI % Others, please specify _____
After chemotherapy: US % CT % MRI % Others, please specify _____
After target therapy: US % CT % MRI % Others, please specify _____

(D) Radiotherapy: current practice and future clinical trials

• Do you use external radiotherapy for HCC treatment?

No

Yes Please provide the following information:

• What type of external radiotherapy is used in your institution? (please choose all that may apply)

Three-dimensional conformal radiation therapy (3D-CRT) About _____ patients/year
Intensity modulated radiation therapy (IMRT) About _____ patients/year
Proton beam therapy About _____ patients/year
Heavy ion beam therapy About _____ patients/year
Others, please specify

• What is the major indication for external radiotherapy for HCC in your institution (please check all that apply)?

First-line therapy as palliative treatment of HCC ,
about % of patients who received radiotherapy
HCC progression/poor response after conventional TACE
about % of patients who received radiotherapy
HCC progression/poor response after systemic therapy
about % of patients who received radiotherapy
Others, please specify
about % of patients who received radiotherapy

• What is the major contraindication for external radiotherapy for HCC in your institution (please check all that apply)?

Tumor size/number/ location , please specify
Extra-hepatic metastases , please specify
Liver function reserves , others, please specify

• Do you use external radiotherapy as single therapy or as part of combined-modality treatment for HCC?

Single therapy as palliative treatment of HCC , about % of patients who received radiotherapy

As part of combined-modality treatment , about % of patients who received radiotherapy, please specify what combined modality you use

• Do you use internal radioembolization for HCC treatment?

No

Yes Please provide the following information:

• What isotope is used in your institution?

Yttrium-90 About _____ patients/year
I-131 About _____ patients/year
Rhenium-188 About _____ patients/year
Others, please specify

• What is the major indication for internal radioembolization of HCC in your institution (please check all that apply)?

First-line therapy for non-curative treatment of HCC
about % of patients who received radioembolization
HCC progression/poor response after conventional TACE
about % of patients who received radioembolization

HCC progression/poor response after chemotherapy
about % of patients who received radioembolization
Others, please specify
about % of patients who received radioembolization

• What is the major contraindication for internal radioembolization of HCC in your institution (please check all that apply)?

Tumor size/location , please specify
Extra-hepatic metastases , please specify
Liver function reserves , others, please specify

• Do you use radioembolization as single therapy or as part of combined-modality treatment for HCC?

Single therapy as palliative treatment of HCC , about % of patients who received radioembolization
As part of combined-modality treatment , about % of patients who received radioembolization, please specify what combined modality you use

(E) The role of cytotoxic chemotherapy

• Sorafenib is the recommended first-line systemic therapy for advanced-stage HCC patients in AASLD/NCCN/APASL guidelines. The reasons that patients do NOT receive sorafenib as first-line therapy in your institution include: (please check all that apply):

Not listed in institutional guidelines Impaired liver function reserves unsatisfactory efficacy economic/reimbursement
Other, please specify

• The reasons that you choose systemic cytotoxic chemotherapy as first-line therapy include: (please check all that apply)

Good performance status/organ function reserves
Atypical pathology (hepato-cholangiocarcinoma, HCC with neuroendocrine differentiation, etc.)
Aiming at down-staging before surgery
Personal/institutional expertise
Other, please specify

• If sorafenib is the standard first-line systemic therapy in your institution, would you consider systemic chemotherapy in the second-line setting?

Yes, please specify reason (s)
No, please specify reason (s)

• If yes, what is the proportion of patients who, having received sorafenib, would undergo second-line systemic chemotherapy? About %

• What do you consider major contraindications of systemic cytotoxic chemotherapy? (please check all that apply)

Liver function reserves , please specify
Performance status , please specify
Hypersplenism , please specify the lower limit of leukocyte and platelet counts that you consider suitable for chemotherapy
Bleeding risk (e.g., esophageal/gastric varices)
Other, please specify

• Please list the 2 to 3 most commonly used regimens of systemic chemotherapy in your institution (please provide reference if available).

(1)
(2)
(3)

• The reasons that you choose hepatic intra-arterial chemotherapy (HAIC) as first-line therapy include: (please check all that apply)

Good performance status/organ function reserves

Atypical pathology (hepato-cholangiocarcinoma, HCC with neuroendocrine differentiation, etc.)

Aiming at down-staging before surgery

Personal/institutional expertise

Other, please specify

• If sorafenib is the standard first-line systemic therapy in your institution, would you consider HAIC in the second-line setting?

Yes, please specify reason (s)

No, please specify reason (s)

• If yes, what is the proportion of patients who, having received sorafenib, would undergo second-line HAIC? About %

• What do you consider major contraindications of HAIC ? (please check all that apply)

Liver function reserves , please specify

Performance status , please specify

Hypersplenism , please specify the lower limit of leukocyte and platelet counts that you consider suitable for chemotherapy

Bleeding risk (e.g., esophageal/gastric varices)

Portal vein thrombosis

Other, please specify

• Please list the 2 to 3 most commonly used regimens of HAIC in your institution (please provide reference if available).

(1)

(2)

(3)

Appendix C. Representative HCC registry data on clinical outcome

National Taiwan University Hospital, Taipei, Taiwan (courtesy of Prof. Ann-Lii Cheng)

BCLC staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
A	>48	94.2	86.7	NA
B	>36	75.9	58.8	NA
C	7.8	22.5	11.8	NA
D	6.2	2.9	2.9	NA
AJCC staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
I	>60	91.9	80.5	64.7
II	46.0	91.0	71.2	43.6
III	10.0	41.3	26.5	15.5
IV	7.9	22.2	4.8	1.6

National Cancer Center Goyang, Goyang, Korea (courtesy of Prof. Joong Won Park)

BCLC staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
A	NA	91.5		67.2
B	32.5	83.2		34.3
C	10.3	46.1		17.1
D	2	20		
Staging Modified UICC	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
I	NA	98.9		71.1
II	87.9	87.7		59.8
III	24.1	68.4		25.1
IVa	5.2	25.1		4.6
IVb	4.7	25		2.1

Toranomon Hospital, Tokyo, Japan (courtesy of Prof. Tetsuya Hosaka)

BCLC staging	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
A	84	99	95	70
B	48	95	85	40
C	30	85	70	25
D	15	65	30	10
Staging JIS score	Median survival time (months)	1-year survival (%)	2-year survival (%)	5-year survival (%)
0	96	100	97	75
1	66	95	90	55
2	42	90	75	30
3	18	70	40	8